

CLAIMS:

1. A pressure sensor having a diaphragm exposed to gas, wherein the diaphragm is covered with metal body that is spaced from the diaphragm, and wherein a predetermined voltage can be applied to the metal body.

2. A transmitter unit, comprising:
- a pressure sensor having a diaphragm exposed to air in a tire of a vehicle,
wherein the pressure sensor measures a pressure of the air in the tire;
- a transmitter that wirelessly transmits data representing the air pressure
5 measured by the pressure sensor;
- a casing accommodating the transmitter and the pressure sensor;
- a lid for closing the opening of the casing; and
- a metal body provided on the lid,
wherein, when the opening of the casing is closed with the lid, the
10 diaphragm is covered with the metal body.
3. The transmitter unit according to Claim 2, wherein the lid has an engaging portion
to which the metal body is engaged.
4. The transmitter unit according to Claim 2, further comprising a power supply
circuit for supplying electricity to the transmitter, wherein when the opening of the
casing is closed with the lid, the potential of the metal body is maintained at the
same potential as the power supply circuit.
5. The transmitter unit according to Claim 4, wherein the power supply circuit
comprises a battery, and wherein, when the opening of the casing is closed with the
lid, the metal body contacts the battery.

6. The transmitter unit according to Claim 5, further comprising conductive material for connecting the metal body with the battery.

7. A tire condition monitoring apparatus, comprising:
- a pressure sensor having a diaphragm exposed to air in a tire of a vehicle,
wherein the pressure sensor measures a pressure of the air in the tire;
 - a transmitter that wirelessly transmits data representing the air pressure
measured by the pressure sensor;
 - a casing accommodating the transmitter and the pressure sensor;
 - a lid for closing the opening of the casing;
 - a metal body provided on the lid, wherein, when the opening of the casing
is closed with the lid, the diaphragm is covered with the metal body;
 - a reception antenna for receiving data transmitted by the transmitter; and
 - a receiver for processing data received with the reception antenna.
8. The tire condition monitoring apparatus according to Claim 7, wherein the lid has
an engaging portion to which the metal body is engaged.
9. The tire condition monitoring apparatus according to Claim 7, further comprising a
power supply circuit for supplying electricity to the transmitter, wherein, when the
opening of the casing is closed with the lid, the potential of the metal body is
maintained at the same potential as the power supply circuit.
10. The tire condition monitoring apparatus according to Claim 9, wherein the power
supply circuit comprises a battery, and wherein, when the opening of the casing is
closed with the lid, the metal body contacts the battery.

11. The tire condition monitoring apparatus according to Claim 10, further comprising
conductive material for connecting the metal body with the battery.
12. The tire condition monitoring apparatus according to Claim 11, wherein the
conductive material is rubber.